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| Internship Project Title | TCS iON RIO-125: HR Salary Dashboard - Train the Dataset and Predict Salary |
| Name of the Company | TCS iON |
| Name of the Industry Mentor | Debashis Roy |
| Name of the Institute | SDM Institute for Management Development |

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| Start Date | End Date | | Total Effort (hrs.) | | Project Environment | Tools used |
| 01-11-2023 | 10-11-2023 | | 75 | | Posit Cloud | R Studio |
| Milestone # | 2 | Milestone: | | Train the dataset and predict the salary of particular HR based on the dataset. | | |

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**ACKNOWLEDGEMENTS**

I am conveying my sincere gratitude towards my industry mentor, Rushikesh Meharwade, for helping me throughout this project till now and providing me this wonderful platform to complete this project. I am also thankful for answering my queries at every phase of the project. I also want to thank all my friends who helped me with valuable suggestions during this project.

**OBJECTIVE**

The primary goal of this project is to utilize the dataset to develop an effective HR Salary Prediction Dashboard. This dashboard leverages the principles of Ordinary Least Squares (OLS) Regression to provide precise salary estimations. The project aims to empower HR professionals with valuable insights, enabling them to make informed and data-driven decisions regarding salary offers to job candidates.

**INTRODUCTION**

The dataset used in the HR Salary Prediction Dashboard project comprises detailed profiles of job candidates, featuring essential attributes such as age, education level, years of experience, and their corresponding salaries. With over 32,000 records, this dataset offers a diverse representation of job profiles and their associated salary figures, making it a valuable resource for our predictive modeling and HR decision-making objectives.

This dashboard leverages the principles of Ordinary Least Squares (OLS) Regression to provide precise salary estimations. The project aims to empower HR professionals with valuable insights, enabling them to make informed and data-driven decisions regarding salary offers to job candidates.

By employing OLS Regression, the project seeks to offer a straightforward and interpretable approach to salary prediction. The HR Salary Prediction Dashboard is designed to enhance the efficiency and accuracy of salary estimation, contributing to more informed HR decision-making.

**INTERNSHIP ACTIVITIES**

* + Watched the welcome kit videos.
  + Done preparations for RIO – pre-assessment.
  + Attended the RIO – pre-assessment test.
  + Went through the day-wise plan.
  + Read the project reference material.
  + Read the industry project material.
  + Watched webinar 1.
  + Watched webinar 2.
  + Gone through all posts in the digital discussion room.
  + Watched lectures and other videos to gain a better understanding of the topic.
  + Created a GitHub account to store and share my project files.
  + Found a suitable data set for the project.
  + Wrote activity reports to document my progress.
  + Verified that the data set had enough data for the project.
  + Read articles and learned how to clean and sanitize the data.
  + Applied data cleaning and sanitization techniques to the data set.
  + Conducted exploratory data analysis to identify patterns and trends in the data.
  + I watched videos about how to train a model.
  + I used Linear regression and trained it on my data.
  + I also used a KNN (k-nearest neighbor) classifier and trained it.

**APPROACH / METHODOLOGY**

To complete the second milestone of my internship project, I took the following approach:

* I began by understanding the concepts and requirements of the project through reading articles and watching videos.
* I used RSTUDIO for programming because it allows me to quickly write and execute code.
* I created a GitHub account to publish my code and share it with others.

Overall, this approach allowed me to gain the knowledge and skills necessary to work on the project and make progress towards the first milestone.

**OUTCOME**

Over the course of 15 days, I have gained a lot of knowledge about a variety of topics. I have learned and understood many concepts and ideas related to my internship project, and I feel that I have made good progress in my learning.

**LINK TO CODE AND EXECUTABLE FILE**

* Link to the code:

<https://posit.cloud/content/6999618>

* Executable file:

<https://github.com/anshitajain1102/TCS-ION-REMOTE-INTERNSHIP-HR-SALARY-PREDICTION-USING-R-PROGRAMMING>